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BUSINESS INTELLIGENCE

Analytics Can Focus Safety Programs

THE COMBINATION of data mining and predictive modeling can help companies reduce injuries on the job and save money, according to a report by Deloitte Consulting that was released last month.

Deloitte dubbed the technology "safety analytics" and said it can help a company focus its safety programs on the biggest hazards and the people who are most at risk.

The concept goes well beyond just looking at injury reports. Predictive modeling "can help identify potential accident sites and victims before incidents occur, allowing companies to put strategies in place that focus on prevention," the report said.

For example, the report cited a national waste management company that improved its safety record after pulling together and analyzing years of data on employees, compensation claims and risk characteristics for its industry.

Reducing injuries not only has social benefits; it can save companies big bucks as well. Workers' compensation claims and other direct costs related to on-the-job injuries total $53 billion annually in the U.S., according to industry estimates.

Safety analytics requires correlating loads of internal personnel data and external information, such as census, crime and demographic statistics. The analysis helps companies "understand not just what situations are most risky, but which particular segments of the workforce are most likely to have accidents in those situations," Deloitte's report said.

– Mitch Betts

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RESEARCH RECAP

Survey: Big Firms Shunning Public Cloud Storage

Only 10% of large corporations are considering the public cloud as a place to store even their lowest tier of data for archive purposes, according to a survey by TheInfoPro, a market research firm.

The survey of 247 Fortune 1000 corporations was released last month. Asked about storage-as-a-service, 87% of the respondents indicated that they had no plans to use the public cloud, 10% said that they would use it, and 3% indicated that they weren't sure.

Large corporations are worried about turning their data over to an external service; they're also concerned about performance, said Marco Coulter, an analyst at TheInfoPro. "We're seeing infrastructure in the cloud. We're seeing applications in the cloud, email in the cloud, HR and CRM in the cloud, but [storage] is the piece that doesn't make sense for them," he said.

Coulter added that, given the survey results, it isn't surprising that cloud storage vendors such as Iron Mountain, Cirtas and EMC have recently pulled back from the market.

Private cloud adoption was a different story, however, with most respondents saying they face virtually no obstacles or challenges when it comes to deploying private clouds.

The survey also showed that automated data tiering is one of today's hottest storage initiatives.

– LUCAS MEARIAN

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BETWEEN THE LINES

By John Klossner

PROCESSORS

3D Chips May Help Intel Go Mobile

INTEL'S NEW 3D transistor technology could position the chip maker to grab a piece of a burgeoning business that it's been missing out on: the tablet market.

On May 4, Intel announced a major leap in chip technology: 3D transistors that could make PCs, smartphones and tablets faster and more power-efficient. The 3D transistors are slated to make their first appearance when Intel moves to 22-nanometer chips next year.

Instead of building traditional, flat, 2D transistors, Intel will build the new transistors upward, making it possible to squeeze in more transistors while maintaining density and a small chip size.

That means new chips using the 3D transistors, which use less than half the power of 2D transistors, will be as much as 37% faster than Intel's current 32nm chips.

The development represents a huge boost to the company's efforts to keep up with Moore's Law, Gordon Moore's 1965 prediction that the number of transistors on a chip will double about every two years.

The advancement also means that Intel may now have a shot at working its way into the lucrative tablet and smartphone markets, which have been a treasure trove for rival ARM.

ARM's chips are used in most tablets and smartphones today, and the company has become an increasingly formidable competitor to Intel, basically blocking the chip giant from getting a solid foothold in the new market.

"It's going to make [Intel] much more competitive with ARM processors," said Dan Olds, an analyst at Gabriel Consulting Group.

Rob Enderle, an analyst at Enderle Group, said the 3D chip gives Intel a good starting point for entering the smartphone and tablet markets, but he said Intel will need to improve its marketing, too. It will be hard for Intel to displace ARM on mobile devices, Enderle said, "because ARM is entrenched and the ecosystem around it is becoming more robust by the day."

– Sharon Gaudin

Micro Burst

PAPERLESS? HA!

In a survey of 1,480 people who use smartphones for work,

52%

said they can't print from their device but want to.

SOURCE: U.S. SURVEY BY IDC, MAY 2011

DATA CENTERS

Capacity Crunch Leads to More Outsourcing

More large companies are turning to collocation providers to relieve capacity constraints in their data centers and avoid the high cost of building their own brick-and-mortar facilities, according to two studies released this month.

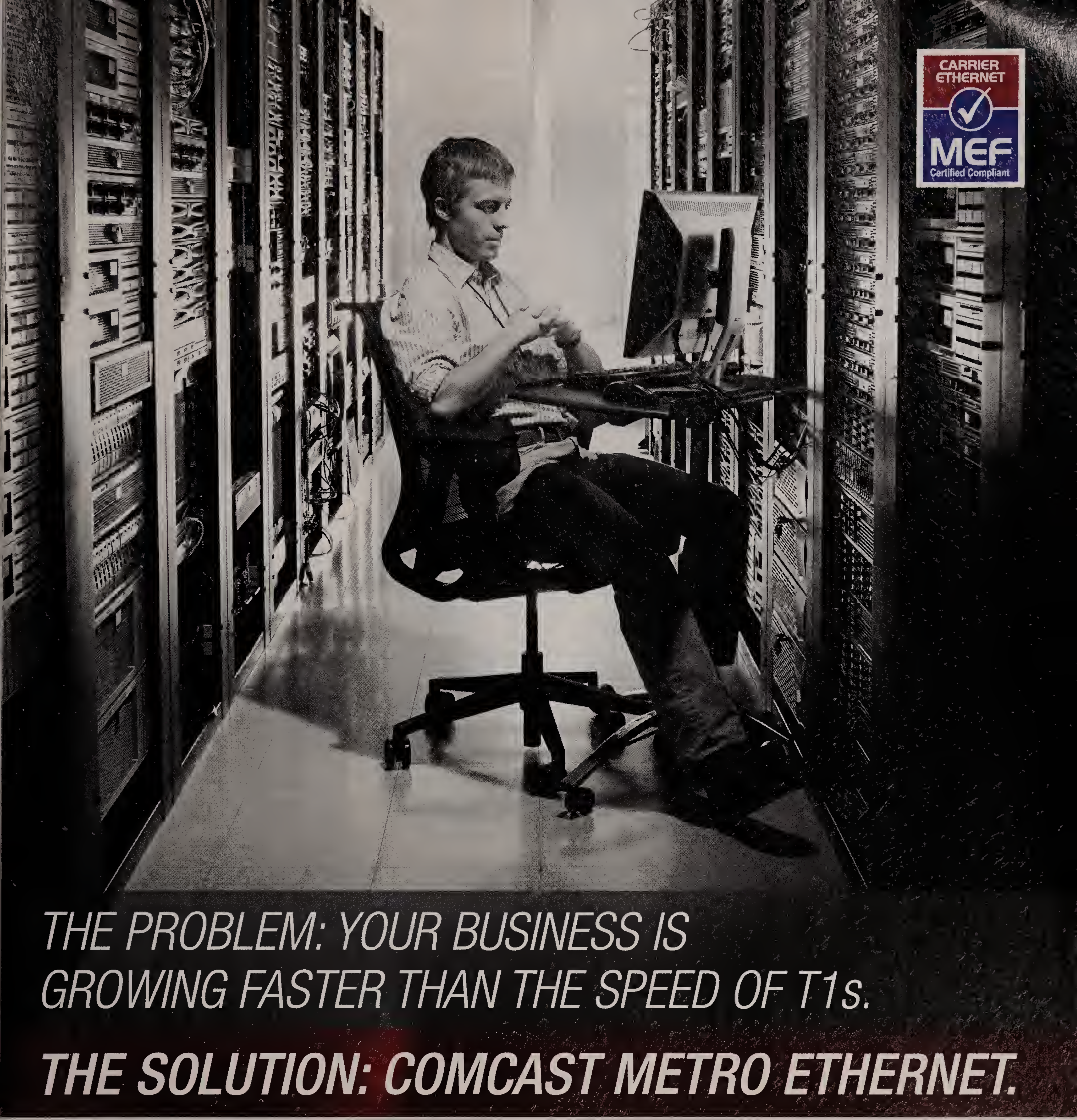
The Uptime Institute reported that 36% of the 525 large companies it surveyed expect to run out of capacity in at least one of their data centers over the next 18 months.

Consolidating servers and upgrading power and cooling equipment are the primary ways the companies surveyed said they would boost their capacity. But 29% said they plan to lease collocation space, while 20% will move workloads to the cloud.

A separate study commissioned by Digital Realty Trust, which builds and operates data centers, showed a similar shift toward data center managers leasing space from third parties rather than building their own data centers. That study surveyed 300 IT executives.

"Increasingly, enterprises appear to be favoring the lease model, as fewer companies are choosing to go it alone on these capital-intensive projects," Michael Foust, Digital Realty's CEO, said in a statement.

– JAMES NICCOLAI, IDG NEWS SERVICE



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BUSINESS CLASS

July 11, 2001: Bill Gates speaks at Microsoft's first shareholders meeting after settling the company's three-year antitrust case with the U.S. government.

Case Closed: Microsoft Marks the End of an Era

U.S. oversight of the software company ceases, bringing a landmark antitrust case to an end.

By Patrick Thibodeau

IN 2000, a federal judge ruled that Microsoft was as much a threat to competition within the U.S. economy as Standard Oil had been almost a century earlier. Judge Thomas Penfield Jackson proceeded to order that the company be split in two.

Jackson ruled that Microsoft had "placed an oppressive thumb on the scale of competitive fortune." Microsoft's then-CEO, Bill Gates, called the decision "the most massive attempt at government regulation of the technology industry ever."

The main allegation in the original lawsuit, filed in 1998 by the U.S. Department of Justice and the attorneys general of 19 states and the District of Columbia, was that Microsoft had illegally maintained a monopoly in PC operating systems.

The breakup order didn't survive Microsoft appeals, which led to the DOJ's imposition of a limited set of rules designed to keep the company from punishing equipment makers that sold rival products, and to prevent it from withholding its APIs from third-party developers.

DOJ supervision of those remedies ended on May 12, marking the close of a landmark case that began 13 years ago.

In recent years, U.S. District Court Judge Colleen Kollar-Kotelly, who oversaw Microsoft's compliance with the twice-extended November 2002 settlement agreement between Microsoft and the DOJ, focused mostly on a small piece of the settlement — the requirement that Microsoft share technical documentation for communication protocols with competitors.

The DOJ said in a statement that "the final judgment prevented Microsoft from continuing the type of exclusionary behavior that led to the original lawsuit." It added that "competitive conditions" bred by the agreement had fostered the development of new technologies, including cloud computing and mobile devices.

In a statement this month, Microsoft said, "Our experience has changed us and shaped how we view our responsibility to the industry."

Critics' fears that the DOJ probe would stifle innovation have proved mostly unwarranted, said Vint Cerf, Google's chief Internet evangelist and a co-designer of the TCP/IP protocols underlying the Internet.

Speaking at the Interop conference earlier this month, Cerf pointed out that there have been a number of big developments in IT recently. "Open source has become such a strong force in the software world," he said. "Look at Linux and its predecessor, Unix. Look at Android, or Chrome and the Chrome OS."

Analysts did speculate that the antitrust settlement may have had a psychological impact on Microsoft.

IDC analyst Al Gillen noted that Microsoft has been less aggressive in exploiting new opportunities because it's wary of running afoul of regulators. "There were a lot of technical decisions that percolated up into the legal department," he said.

Still, Microsoft remains strong, and it's well positioned in emerging areas like cloud computing. But few experts believe that Microsoft alone can pose a significant threat to competition.

In fact, just days before U.S. oversight of the company ended, Microsoft agreed to pay $8.5 billion for Skype, but the move didn't seem to raise the hackles of competitors or regulators. ◆

Nancy Gohring, Grant Gross *and* **Mikael Ricknäs** *of the IDG News Service contributed to this story.*

> **There were a lot of technical decisions** that percolated up into the legal department to make sure they could do what they were planning to [do]. — **AL GILLEN,** ANALYST, IDC

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Google Adds Netbook to IT Toolbox

The Chromebook's use of cloud-based apps and its monthly 'rental' model could attract the attention of corporate IT.

By Sharon Gaudin and Gregg Keizer

Sundar Pichai, senior vice president of Chrome at Google, shows off a Samsung Chromebook during a keynote address at the Google I/O developers conference.

REUTERS / BECK DIEFENBACH

GOOGLE MOVED to push further into corporate IT shops when it unveiled the Chromebook netbook computer at its Google I/O developers conference in San Francisco earlier this month.

The new Acer- and Samsung-built computers will run the Google Chrome OS operating system, which was built to run Web-based applications. They will join the company's hosted office applications, the Chrome browser and the Android mobile platform as key components of Google's enterprise effort.

The Chromebook will run cloud-based applications and will receive software and security updates automatically. Analysts said they expect it to attract the attention of IT managers because it could help them cut software, services and security costs.

Further, they said, companies might be intrigued by the fact that the Chromebook will be available on a subscription basis — businesses can "rent" the devices from Google for $28 per user per month, while schools and government agencies will be charged $20 per user per month.

"[Google isn't] going to make a lot of money in the short term on either the OS or the devices, but they're playing a longer-term game here," said Dan Olds, an analyst at Gabriel Consulting Group.

Samsung's Chrome OS-based netbooks will be priced from $429, and Acer's will start at $349. They will be available on June 15 from Best Buy and Amazon.com.

Zeus Kerravala, an analyst at Yankee Group, said Chromebooks will let IT shops test cloud apps easily. And he predicts that such tests could help convince IT managers that the cloud is secure.

A purely Web-based computer "is much more secure," Kerravala said. "All the content and apps live in the cloud, so if a device is lost or stolen, there's no risk. It's great for road warriors because it's instant-on and doesn't have the usual issues of having to update patches."

Security professionals, however, suggested that automatic delivery of security updates could give IT managers pause.

"This does concern me," said Jason Miller, data and security team manager at security vendor Shavlik Technologies. Patches should be tested before they're deployed, he said, but with the Chromebook, "you don't get a say, [which] leaves you at the mercy of Google."

"This is never going to fly for IT," contended Jeremiah Grossman, CTO of WhiteHat Security.

That's because administrators are responsible not only for the security of corporate networks, but also for their smooth operation. If a patch in a Chrome OS update leaves the Chromebook incompatible with a Web application or, worse, cripples the machine, it's the administrator's neck on the line, not Google's.

Over the long run, though, any IT resistance to automatic updates may be moot, said Gartner analyst John Pescatore.

"I think that really is the way of the future. It is pretty much how it works in the smartphone and cellphone world," he said. "Enterprises will just have less control in the future. And security strategies will have to evolve to deal with it."

The Samsung Chromebook has a 12.1-in. display, an Intel Atom dual-core processor, two USB ports, and a full-size keyboard and trackpad. Acer's machine has an 11.6-in. display, an Atom dual-core processor, two USB ports, an HDMI port, and a full-size keyboard and trackpad.

During a press conference at the Google conference, Sundar Pichai, senior vice president for Chrome at Google, said the company doesn't plan to introduce a Chrome OS tablet computer in the near future. "We have no other plans at this time [for] any other form factors," he said. ◆

Juan Carlos Perez *of the IDG News Service contributed to this story.*

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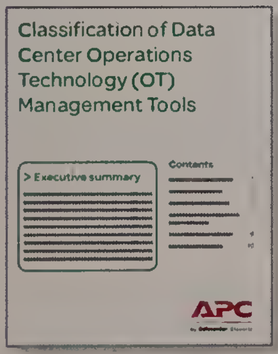

Classification of Data Center Operations Technology (OT) Management Tools

> Executive summary

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THE Grill

Andy Pratt

To keep pace with traveling students, this IT director is creating a virtual classroom.

Favorite nonwork pastimes: Endurance athletics, and performing with a comedy juggling troupe called We're Not Clowns.

Second job: Professional musician, playing piano, guitar, banjo, bass, French horn and drums.

What piece of technology are you never without? My BlackBerry.

ANDY PRATT, *director of technology at The Lowell Whiteman School, has to support some unusual schedules. Many of the students at this college-prep boarding and day school in Steamboat Springs, Colo., are competitive skiers and snowboarders who travel the world for training and competitions. Teachers and students had relied on paper-based assignments and occasional phone calls and, later, a patched-together recording system. But this year, Pratt implemented a videoconferencing system to create a much richer academic experience for students while they're away. And he's not stopping there — Pratt is building a technology plan to better use mobile phones and the Internet to create a virtual campus that can reach students wherever they may be.*

How do you deliver academics to your student-athletes while they're traveling? Primarily over the Internet. The lectures are videotaped using [Logitech] LifeSize equipment and

Continued on page 12

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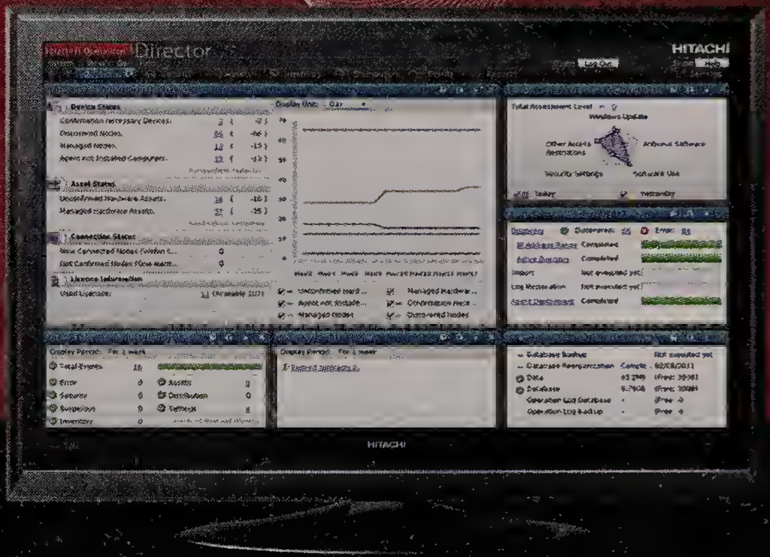

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Continued from page 10

stored so they can deliver it anytime. We use Google Docs for documentation transmission, syllabuses, assignments and homework.

How do you ensure that these traveling students get the fullest academic experience? I think video and teleconferencing makes all the difference. [Experts say] 80% to 90% of a message is conveyed through facial expression, and the LifeSize equipment conveys that — much more than just audio. And all our teachers use whiteboards to transfer complex concepts using drawings, and that's something that an audio or an email may not deliver as well as a video.

Does the work you do to support students on the road influence the types of technologies you deploy at your school's main campus? Absolutely. We're at the end of our life cycles with pretty much all our technology, but my current plan is to host the website here and host all of our documentation. We're currently using software as a service for our school management, but it's a failed experiment as far as I'm concerned — it's just not working out. So I'm bringing everything here but making everything available on the Internet. My plan is to make this accessible from anywhere in the world.

How will you achieve that? A few different ways. We'll have a server here, most likely Microsoft. We're looking into SharePoint, and we're experimenting with Moodle, free Web-based software, where the entire curriculum is laid out and all documentation and assignments are run through there. So it's kind of a curriculum manager, and since it's a Web-based product, kids could be anywhere and use it. One of my other ideas is to use smartphones for more educational purposes. You can write a paper on a phone now, you can use a spreadsheet on a phone now or create a presentation on a phone. It changes whether we need a computer lab or students need a laptop. It's an interesting and exciting time to be doing what we're doing. There are ways to get the phone to interact with software to answer surveys, so teachers can get students to answer questions and then the teachers can see the results on a graph. My thought is that there are ways to compress LifeSize videos so they could watch them on the phone, and that wouldn't even require an Internet connection. And the phones could access Moodle, which would have all their documentation and lecture notes. That's the direction I want to go.

How do students respond to the technology you use to support their learning? Some of them think it's really cool, and some of them think it's expected. They grew up in an age when this stuff is normal, and using this sort of technology to get whatever they want when they want is very common. It's a far cry from trying to tell a teacher who has been here for 30 years to embrace this new technology. It's scary to them, but it's not scary to a teenager.

What advice do you have for the companies that will hire today's students in the next decade or so? Because they are exposed to this technology so early and so consistently in their lives, they're going to be quite prepared for the future. But my main concern is that [students] know the process that came to create some of these software solutions. I think what can happen in today's world is not knowing why something is — what's the guts behind something, or knowing basic math without having to use a calculator, knowing the rules of grammar not because Word corrected it for you but because you just know it.

You have a dual title of director of technology and director of music. Does your work in one field influence your work in the other? Certainly, the technology background makes it so I'm savvy with a lot of digital recording, which I do share with the students. And [music] is a brand-new program, which is part of why they hired me. The music does influence the technology part, because reading music is an abstract skill. Taking written notes and making a physical animation of sound — it's a language of its own. It coincides with abstract ideas in technology.

Which student demands most influence your IT operations and choices? That comes down to social networking primarily. They're mostly concerned with YouTube and Facebook. Should our connection go down, that would get them fired up a little bit. But thank goodness I know what I'm doing, so that doesn't happen too often.

— Interview by Computerworld *contributing writer* **Mary K. Pratt** *(marykpratt@verizon.net)*

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OPINION

S.J. VAUGHAN-NICHOLS

Is the Windows Business Desktop Dying?

> What's going to start to loosen the Windows desktop stranglehold is a combination of factors.

ONCE UPON A TIME, you couldn't get fired for buying IBM. We all used to use Internet Explorer. And today, many of us still think that Windows is the only business desktop. But just as IBM and IE are no longer unassailable, I think the days of the Windows business desktop hegemony may be numbered.

No, I don't think my beloved Linux is finally going to become the desktop of choice. What's going to start to loosen the Windows desktop stranglehold is a combination of factors.

First, there's the rise of tablet and smartphone business computing. IT may not like having to support iPads and Android phones, but guess what: Users don't care. Business users in industries such as pharmaceuticals are grabbing iPads almost as fast as Beijing Apple Store shoppers.

As end users run roughshod over IT with their tablets and smartphones, Microsoft simply doesn't have a competitive offering. Yes, there are Windows 7 tablets, such as Fujitsu's Stylistic Q550, and some people, according to Forrester Research, seem to want them. I'd love to know where Forrester found these people. At a price of about a grand, the Q550 isn't exactly making buyers crowd the stores. At the same time, I can find any number of people who want an iPad 2 and cutting-edge technology fans who want Android tablets.

Meanwhile, Google is trying to rip the business desktop away from Microsoft, with its Chrome OS on Chromebooks. While I like that Chrome OS is based on Linux, that's a side issue. The real points in Chromebooks' favor are that they're cheap, they should be reliable, they require no learning curve, and, thanks to Google's Citrix and VMware partnerships, they support Windows-based enterprise applications. It helps too that people trust Google.

Are Chromebooks for everyone? No. How about ordinary day-in, day-out office work? If your days are already spent on Web- or cloud-based applications, then yes, they are.

I've heard some people argue that PCs cost less than $28 a month — which is what Google and partners will be charging. Oh, my friends, you've never been a CIO or CFO.

According to Rajen Sheth, group product manager for Chrome for Business, a Chromebook will cost you $336 a year per user. A 2008 Gartner study, done on behalf of Citrix, showed a total cost of ownership of $2,845 a year for a PC. Even if you take out "fuzzy" numbers for training and the like, you still end up with an annual TCO of about $1,722. Advantage: Chromebooks.

Then there's Microsoft's struggle to get businesses to switch from XP to Windows 7. Even in the mass market, where consumers have long had no real choice, Windows 7 has only recently moved ahead of XP. Indeed, in the previous quarter, overall Windows 7 sales actually declined.

Put it all together, and here's what I get: First, Microsoft is a nonstarter in the explosive tablet and smartphone markets, which are encroaching on what used to be the business desktop market. Second, with the Chromebook, you finally have a real desktop challenger with a powerful backer. And third, Microsoft under Steve Ballmer is clearly not keeping up with the times and, more damaging still, hasn't been successful in getting businesses to switch to Windows 7. Taken as a whole, I see Windows beginning a long, slow decline on the business desktop.

Don't think it can happen? Well, maybe you're still an IBM and IE stalwart. But things change. Even Microsoft's iron grip on the desktop. ◆

Steven J. Vaughan-Nichols has been writing about technology and the business of technology since CP/M-80 was cutting-edge and 300bps was a fast internet connection – and we liked it! He can be reached at sjvn@vna1.com.

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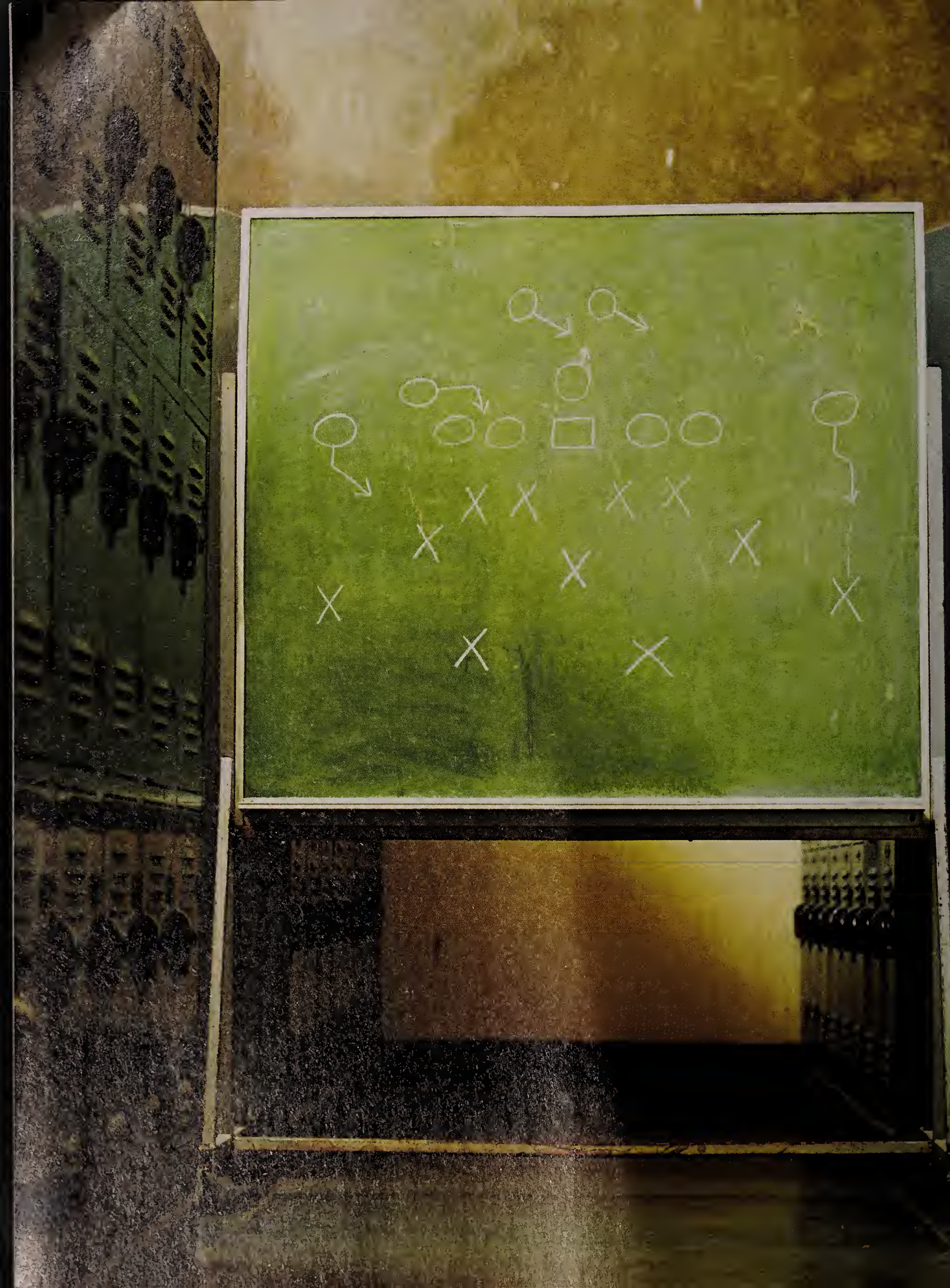

Get Into the M&A Game

IT LEADERS NEED A *playbook* TO MAKE SURE CORPORATE *mergers and acquisitions* REAP THE INTENDED BENEFITS. **BY MARY K. PRATT**

CIO KEN PIDDINGTON says business mergers and acquisitions are a bit like football games. Unfortunately, for years his company kept him on the bench for much of the action.

So Piddington set out to change that. He spent a few months last year developing a playbook that describes how the company's IT department can help M&A deals succeed. It covers everything from the pregame meetings through the post-game commentary.

The strategy worked. "I've gone from not being included to having [a role] fairly early in the deal," says Piddington, the IT leader at oil distributor Global Partners in Waltham, Mass.

MIKE POWELL / GETTY IMAGES

Given that analysts are predicting an uptick in M&A activity this year, CIOs would be wise to be prepared. The age-old complaint is that IT is often sidelined during the early discussions and brought in only after the deal has been signed, in order to integrate the systems. That means companies don't find out about serious system incompatibilities until it's too late. Or they lose out on the cost-saving and revenue-generating benefits that motivated the deal in the first place.

While M&A deals don't usually begin with technology as the raison d'être, they can end badly because of poor IT planning.

"When you look at synergies — why you do a deal and what drives a deal — it's not IT-focused. It's savings, better market share, access to new markets. Yet IT seems to be cited as a key failure point to making any of those things work," says Jeff Shaffer, leader of the IT advisory practice at consulting firm Crowe Horwath in Chicago.

IT's role in mergers and acquisitions, he explains, goes well beyond making sure systems actually run when the companies come together — although that aspect can't be ignored. Shaffer says IT needs to do the following:

- Assess the strengths and weaknesses of both parties' IT infrastructures, how best to integrate them, and how much will it cost.
- Deliver the systems that enable the head-count reductions, process efficiencies or cross-selling synergies that the merger is meant to deliver — and do it on the timeline executives set.
- Look for opportunities to improve IT, from deploying more efficient systems to negotiating better terms with vendors.

> **"I've gone from not being included to having [a role] fairly early in the deal.**
>
> **KEN PIDDINGTON,** CIO, GLOBAL PARTNERS

Piddington says he has demonstrated how delving deeper into IT issues before the deal is done brings value back to his company. He has, for example, been able to lower costs by renegotiating deals with vendors earlier on rather than paying a premium for a last-minute purchase. And in another case, he showed his colleagues how their initial estimated costs for IT integration were off by $5 million — a difference that helped the company decide that the deal wasn't worth doing.

IT's Shortcomings

Analysts estimate that more than half of all mergers and acquisitions fail to achieve their business objectives, and while they say it's not fair to lay all the blame at IT's door, IT does play a part in those failures.

McKinsey & Co., in its January 2011 report "Understanding the Strategic Value of IT in M&A," found that "50 to 60 percent of the initiatives intended to capture synergies are strongly related to IT, but most IT issues are not fully addressed during due diligence or the early stages of post-merger planning."

Often the IT organization isn't involved or isn't "forceful enough to articulate the [business-IT] dependencies that have to exist to achieve full value," according to report co-author Hugo Sarrazin, a senior partner at McKinsey.

The absence of many CIOs from early M&A discussions stems from several factors. Sometimes the reason is that there's a need for secrecy early on, so companies limit the number of executives involved in laying the groundwork. Or dealmakers may still

Will You Stay Or Will You Go?

A BIG QUESTION facing any CIO going through a merger is whether he or she will still have a job when the deal is done.

Granted, the CIO at the company that's doing the buying usually has an edge, but even then there's no assurance of job security, consultants say. The best way to secure your professional future is to be well prepared, says Jeff Shaffer, leader of the IT advisory practice at Crowe Horwath. "The CIO who is prepared for the M&A helps prepare for his or her own success, because if you're invaluable to the integration, you're at the very least guaranteed to have a role through the integration process," he says.

Ken Piddington, CIO at Global Partners, says CIOs improve their chances of staying on post-merger – even if they're from the acquired company – if they've built a standout IT organization with the kind of talented leaders and staffers that any company would want to keep on.

"If you've done a great job and built world-class IT, you've positioned yourself to be the IT department of choice," he says.

But even if you're not retained as the post-merger CIO, how you handle yourself during the transition can be critical to your future, Piddington says. "You've got to be a team player. You just don't burn bridges," he says. "This is a small field, and you might end up working for the same people down the road."

– MARY K. PRATT

perceive IT as a backroom order-taker and don't even think of including the CIO.

"Even though we've gotten better at getting a seat at the table, we still fit into that support organization, so we're brought in later for M&A activity," says Christopher Bernard, vice president of business optimization and CIO at Haig Service Corp. in Green Brook, N.J. "There are some exceptions when it is a significantly large transaction, but even then we might not be in as early as people who are in the business side of the transaction."

Bernard says his fellow CIOs shouldn't settle for such a limited degree of inclusion, considering that the deal's success — as well as their own careers — could be on the line.

But the time to build up your M&A capabilities isn't when those confidential conversations start. Companies that successfully shepherd their IT through M&A deals "get their own IT house in the best possible shape before initiating any deals," according to Sarrazin's report. "Many have already adopted advanced, service-oriented architectures that are generally more flexible and adaptive."

In the big picture, Sarrazin adds, CIOs need to be totally in sync with the CEO's goals for the company — including the opportunities generated by mergers and acquisitions — and have a vision for how IT can help the company meet those goals.

Building the M&A Playbook

The next step is to create an M&A playbook to guide IT — and the rest of the business — through the process.

Piddington, the CIO who wanted to get more involved in M&A deals at Global Partners, developed a playbook last year and made sure other executives knew about it too. Whether it was at lunch or chatting in the hallway, Piddington says he was selling company executives on the idea that IT was strengthening its M&A capabilities for the future.

It's a smart move, notes George Lawrie, a Forrester Research analyst who co-wrote a report titled "A CIO's Guide to Merger and Acquisition Planning" last year. "The playbook puts you on the radar of all your other colleagues," Lawrie says. "It helps your C-suite to recognize that you're thinking along the same lines they are and you're not just some functionary foreman."

Whether you call it a playbook, a checklist or a road map, an M&A plan is an actual tool, not just marketing hype. It helps CIOs identify what IT issues to address and when, from early-stage discussions through due diligence and into actual integration.

"We need our own checklist [that asks whether] the company is in compliance with their license agreements, what's the level of their personnel, what is the software they're using, how is the department structured, what we can learn from them," says Greg Taffet, CIO of U.S. Gas & Electric in North Miami Beach, Fla.

As with any checklist, the goal is to avoid forgetting something important. "When you're on the ground doing due diligence, there are 100 things being thrown at IT, and unless you have that workbook to go through, then you'll come out missing key points," says Hank Zupnick, CIO of GE Capital Real Estate, the commercial real estate division of GE Capital.

Zupnick, who has been involved in a more than a dozen M&A deals, says having a checklist ensures that he's ready to start gathering and assessing the right information as soon as his company starts looking to make an acquisition. "The playbook says, 'OK, what am I going to do with this target company I'm buying?' "

Five Phases of M&A Integration

Gartner researchers say in a July 2010 report that the IT department plays a key role, along with other parts of the business, in these five phases of M&A integration:

1. **The Due Diligence, or Planning, Phase** This is when managers quickly gather information and sketch out a plan of action.

2. **The Welcome Phase** Visible changes are made at this stage. For example, employees are given harmonized email addresses, phone accounts and security badges, and key people are moved to new physical locations.

3. **The Commercial Phase** At this point, the focus is on urgent matters such as legal and regulatory issues, integrating financial and management information, and "presenting one face to the customer."

4. **The Main Integration Phase** This is when most of the big process and system changes are executed.

5. **The Reap-the-Benefits Phase** Once the companies are integrated, benefits such as cost savings or increased market share are realized and monitored. Managers can also capture lessons for subsequent M&A activities.

A good rule of thumb is that IT will be involved in about 25% of a typical M&A integration project overall, but the amount of IT department time and effort required in each phase will vary significantly, Gartner says.

GETTY IMAGES / COMSTOCK

Three M&A Success Factors

Companies with successful M&A track records share these best practices when it comes to back-end integration:

1 **They enter deals with their own IT operations in good shape,** often with a flexible service-oriented architecture.

2 **They engage IT leaders early in the process,** allowing them to assess the target company's technology. Then, as the deal progresses, the IT leaders devise a more complete strategy and budget for integration.

3 **They develop careful post-merger integration plans that identify key issues,** such as which technology platforms and data architectures will prevail.

SOURCE: McKINSEY & CO., JANUARY 2011

Beyond assessing the assets of each player's IT department, including the people and infrastructures, the playbook needs to cover different scenarios, such as whether the target company will be fully integrated or keep its own systems, and whether to consider using any of the target company's IT or just move everything over to the buyer's systems.

What's at Stake?

Getting a CIO's involvement early on in an M&A deal and allowing IT to delve deeply enough to really understand the key issues is crucial for limiting risks and maximizing opportunities.

"Only IT leaders truly understand the risks and consequences of not doing a proper due diligence on technology ahead of time. Only they know the intricacies of the enterprise architecture, infrastructure, and have the system and business domain knowledge needed to support them," says Dorothy Hatzikonstantis, vice president of enterprise business applications at Pegasystems in Cambridge, Mass. Without that insight, she says, "the cost to the company can be millions in redundant or unseen expenditures."

Hatzikonstantis has worked on the IT front in several M&A deals with previous employers. She recalls one case where her company thought it was buying another at a great price but learned through its IT due-diligence process that the target company had never paid for its desktop software licenses and faced a licensing liability in the millions.

But building up your M&A capabilities means you can do more than assess the IT assets, says Jim Smith, leader of the M&A consulting practice at PricewaterhouseCoopers. A skilled CIO who understands what motivations are driving the deal can figure out how IT can help reach the deal's stated business goals.

"Research shows that integrating information systems is one of the top challenges for any merger or acquisition, but it's the one where you can get the most benefits," Smith says. "It's critical to capture deal values."

He recommends that CIOs initially focus on the 20% of the M&A work that will drive 80% of the deal's value, rather than wasting time on integrating and consolidating applications that bring little or no real value to the merged entity.

"The most important thing is the synergies we can get," says U.S. Gas & Electric's Taffet.

The tasks of integrating systems and migrating workers from one platform to another are crucial, of course, but Taffet says the ability to use IT to fuel cost savings from personnel reductions or boost revenue by entering new markets — the kind of business objectives that drive mergers in the first place — is what CIOs should aim to achieve as soon as possible.

McKinsey's Sarrazin notes that top executives don't want to wait long to see results. Even though some technical work could take months or more, he says what happens in the first 100 days — essentially the merged entity's first quarter — is crucial.

"A savvy CIO will know how quickly a merger has to reveal these synergies," Forrester's Lawrie adds.

As a Gartner report put it last year: "M&A integrations are among the most challenging situations that CIOs and their IT organizations will ever face, and they are fraught with risks. However, they also present a powerful opportunity to demonstrate the capabilities and business value of IT, and to stretch the performance of IT team members." ◆

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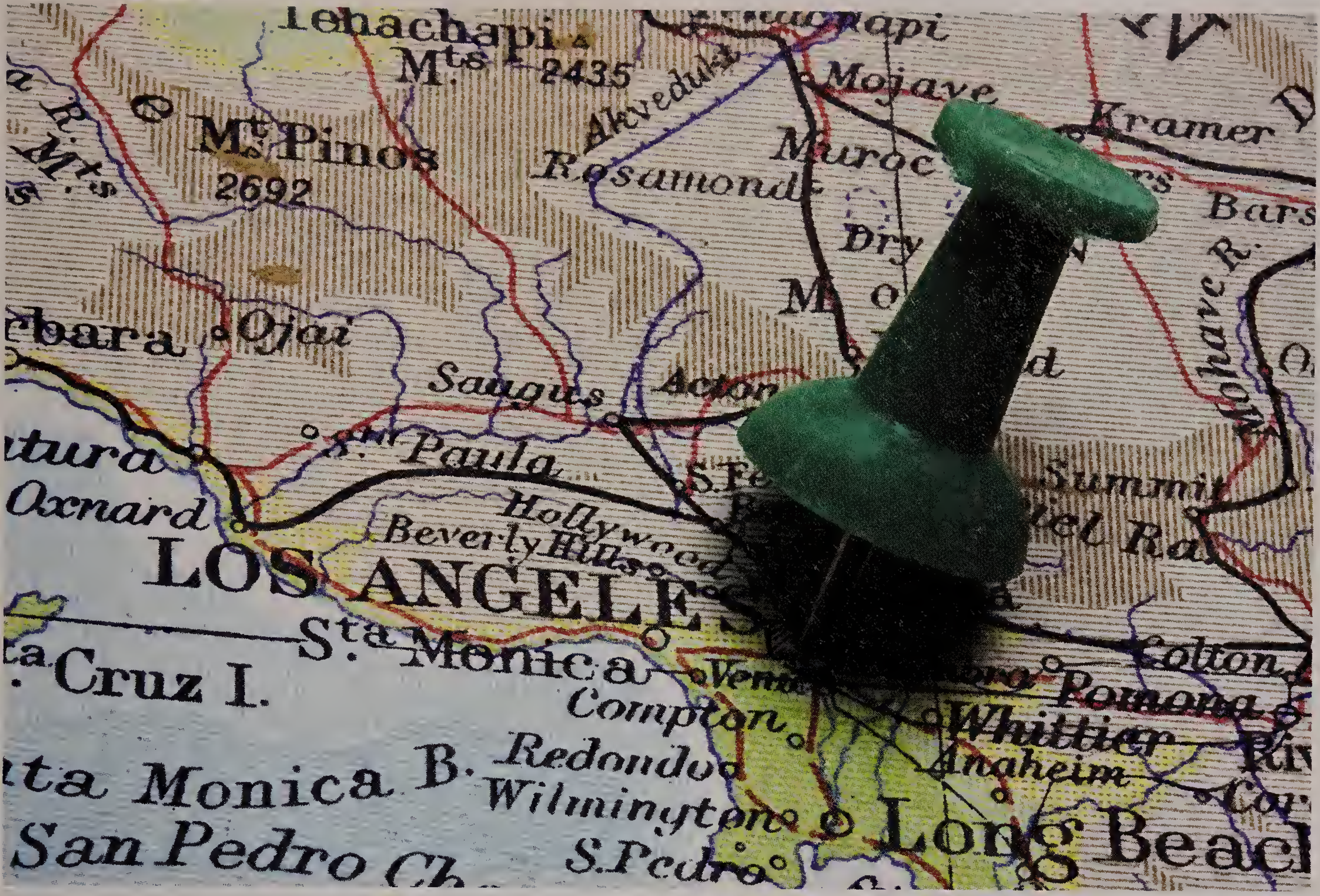
CIO Greg Taffet uses checklists to identify potential IT challenges during a merger.

How to Integrate an Acquired Company in 90 Days

IT SOUNDS IMPOSSIBLY FAST. But Avnet, an electronic components distributor, has an M&A playbook that helps the Fortune 500 company bring acquisitions into the fold (including IT systems) within 90 days – and with sensitivity to the human cost. Avnet CIO Steve Phillips explained the process at *Computerworld's* Premier 100 IT Leaders conference in March. **http://tinyurl.com/CW-Avnet**



Redistricting

FOR THE MASSES

Why should politicians have all the gerrymandering fun? LA County's cloud service lets voters participate. **By Robert L. Mitchell**

[redacted]

AS THE 2010 U.S. CENSUS RESULTS arrived in March, Los Angeles County's politicians started ramping up for redistricting — the once-a-decade, computing-intensive, often contentious process of geographically carving up the populace into discrete parcels of voters.

In the past, such decisions were made by politicians using expensive computer systems and software. Participation in the process was limited to an elite few who could afford experts who understood redistricting's arcane rules and geographic information system (GIS) technology well enough to game them.

"Redistricting is an extraordinarily important process in terms of who has a political voice, but it's an extraordinarily elitist field," says John Kim, co-director of the Advancement Project, a civil rights advocacy group based in Los Angeles.

This year, however, it won't just be the politicians and special interest groups poring over the data and tweaking boundary lines. All 4.5 million registered voters in LA County have access to a

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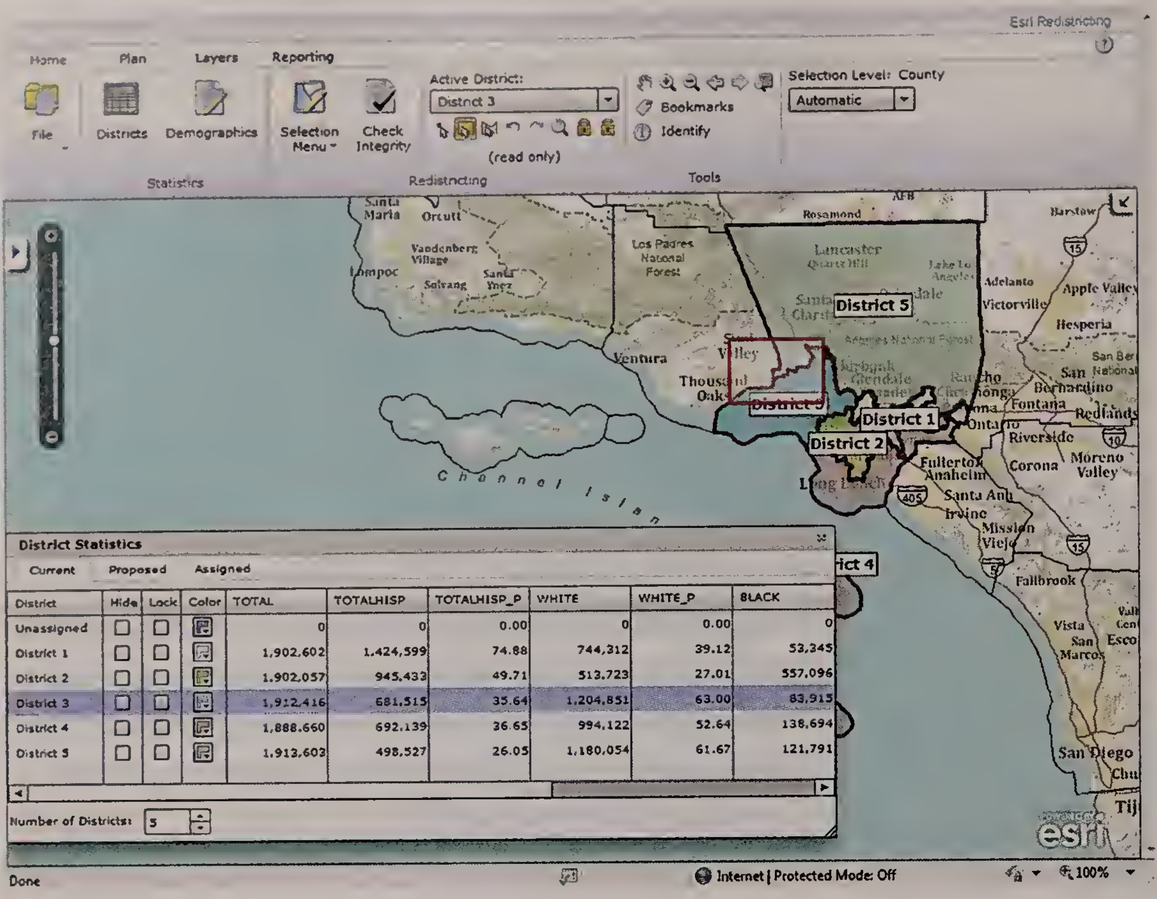

District Statistics

Current Proposed Assigned

District	Hide	Lock	Color	TOTAL	TOTALHISP	TOTALHISP_P	WHITE	WHITE_P	BLACK
Unassigned	☐	☐		0	0	0.00	0	0.00	0
District 1	☐	☐		1,902,602	1,424,599	74.88	744,312	39.12	53,345
District 2	☐	☐		1,902,057	945,433	49.71	513,723	27.01	557,096
District 3	☐	☐		1,912,416	681,515	35.64	1,204,851	63.00	83,915
District 4	☐	☐		1,888,660	692,139	36.65	994,122	52.64	138,694
District 5	☐	☐		1,913,603	498,527	26.05	1,180,054	61.67	121,791

Number of Districts: 5

» With LA County's redistricting application, citizens can expand or contract a district by clicking on redistricting units (based on census tracts) or by dragging existing district boundaries. As boundaries change, users can monitor demographic changes in a separate window.

cloud-based redistricting application called the Public Access Plan. Hosted by GIS vendor Esri, the application lets voters view and modify existing maps and boundaries, submit comments, and even create and submit their own plans from scratch.

Users have access not just to maps with political boundaries, but to geo-coded census and county voting data as well, all of which can be tabulated and displayed over a district map as a table or graph. Or, if they already have a GIS and redistricting software, they can download the data.

"The county wants to promote the widest practicable citizen involvement in the redistricting process," says Martin Zimmerman, assistant CEO for LA County.

LA County is among the first government entities to consider providing Web-based tools that allow for direct public participation. "This notion of public access has changed quite dramatically," says Tim Storey, a senior fellow at the National Conference of State Legislatures. "Throwing that wide open is a big step."

The big question now is whether the public will use it.

"People want to know how the decision is made, and they have an opportunity to participate if they want to take the time," says Curt Pedersen, chairman of the county's Supervisorial Redistricting Boundary Committee. The appointed members of the committee will review plans, hold public hearings and make a recommendation to the LA County Board of Supervisors, an elected body that will approve the final plan.

That's a big change from the backroom deals and less-open processes that caused problems in the past. Complaints about gerrymandering circulated after the 1980 census. And after the 1990 census, the Latino community filed a discrimination lawsuit that led the U.S. Department of Justice to overturn the county's plan and redraw boundaries. After the 2000 census, the Justice Department required the county to increase citizen involvement in redistricting.

The Justice Department no longer actively monitors the process, but the county remains committed to taking a more open approach, says Mark Greninger, the county's geographic information officer. "Politicians don't do redistricting anymore. It's a citizens commission," he says, although the politicians still appoint those citizens.

Democracy Tech

Technological advances are gradually opening up the process by making the software used in redistricting more affordable and accessible.

In the 1980s, redistricting tools cost about $300,000; by 1990, the cost had dropped to about $100,000, but that was still more than even large advocacy groups could afford. "All we had was a file cabinet full of index cards with the populations by census tracts," says Steven Ochoa, national redistricting coordinator for the Los Angeles-based Mexican American Legal Defense and Educational Fund (MALDEF).

Between 1990 and 2000, the technology took a big leap. Suddenly MALDEF could afford to buy the software, which could be run on a desktop computer. For smaller public interest groups, however, the tools were still out of reach.

After the 2000 census, the county began offering public access to redistricting systems, but only a few desktop computers were made available to the public in certain county offices, and only during normal business hours. And while it was technically possible for the public to analyze proposed district boundaries and generate plans, the software wasn't easy to use and required training. So in the end, the county received just four or five plans, from organizations that were able to purchase their own redistricting software.

But this year, citizens of LA County won't have to spend a dime for their own systems. Esri's cloud-based application gives

Sacramento Offers Mapping Lite

The city of Sacramento, like LA County, is providing redistricting software to voters by way of a Web-accessible service hosted by Esri. Unlike LA County, however, Sacramento will limit the data it offers to basic maps and political boundaries, plus census block data on population, ethnicity and race, says Maria MacGunigal, the city's GIS manager.

The tool, which allows for group collaboration, is tailored to the needs of neighborhood groups and other citizen activists. "We've worked to build a workflow that is citizen-friendly," she says, explaining that workflows are simpler than those on standard tools, with some advanced features removed. Plans for the eight city council districts were due May 16.

– ROBERT L. MITCHELL

them the same tools and data used by the county's analysts. That includes digital maps with existing congressional, state senate and school district lines, as well as total population, with breakdowns by ethnicity, voter age, gender, household income, home values, political affiliation, and voting behavior in recent elections within each of the county's 2,900 redistricting units (or RDUs, roughly equivalent to the county subdivisions known as census tracts).

Users can click on RDUs to include or exclude them from a district or simply drag boundary lines. As they update boundaries, the statistical data shown in an embedded table or graph updates dynamically.

Today's redistricting software — offered by Esri, Caliper and Citygate GIS — is much easier to use than it was 10 years ago, Greninger says. And while the county's service includes support, he won't have people running to different offices to provide training and address technical problems.

The new system is also more convenient for citizens, who no longer need to travel to use a dedicated computer — any computer with a browser and Internet access will do. And access is available 24 hours a day. "People can do it in their own homes," Pedersen says.

The unanswered question is whether the tools will produce more public input — and generate better districts.

"We could get 10 plans or 1,000," Greninger says. Even Esri, which just recently introduced its cloud-based offering, is waiting to see what happens. "Honestly, I'm still convincing myself that the market is really ready for it," said Richard Leadbeater, manager of industry solutions for state government at Redlands, Calif.-based Esri.

Zimmerman is also taking a wait-and-see attitude. "I question whether there are that many people who want to go through the process," he says. While the tools are better, the rules of the game for producing a viable plan are complex, governed by the U.S. Constitution, the Voting Rights Act, court rulings and regulations. And when it comes to crunching the numbers to get optimized outcomes, computers can only take you so far.

A Hollywood portrayal of gerrymandering might include scenes of political operatives in front of high-performance computers in back rooms, crunching terabytes of demographic and voting history data, and optimizing districts to produce the best possible outcome for a given politician or party. Indeed, the political parties do run very exacting analyses of every voter, says Leadbeater. "Do they own cats, eat Ramen Noodles, read *Esquire* magazine? The parties are doing this in spades." But there are too many variables to automatically optimize district boundaries.

Some variables are straightforward, such as the requirement for each district to contain the same number of people. Others, such the definition of "communities of interest" — which are demographic groups that must be preserved in the new setup — are fuzzy. "There's no algorithm for that," Greninger says.

Even determining the racial makeup of a district can be challenging; for example, the 2010 census included 159 race categories. "It's a very complex, massive computation problem, and it's all about trade-offs," Leadbeater says.

Plus, different rules and principles may be at odds in a given plan. There's no clear determinant as to what takes priority in such cases. It is, says Ochoa, "a very complicated and subjective process" that takes many hours of time and effort. He thinks that people who want to develop viable plans really need to know how to analyze and interpret the results. "Having the software is different than knowing how to redistrict," Ochoa says.

But users may not need that knowledge to make a difference.

The complexity of the problem is overstated, argues civil rights advocate Kim. "They make it seem so technical and so difficult that people throw up their hands." The debate, he says, has been framed in such a way as to discourage public engagement. But it's not rocket science. And on April 15, Kim's organization launched its own redistricting application for Californians at Redrawca.org.

If the technology by itself doesn't guarantee a successful redistricting outcome, people can certainly use it to show the impact of different redistricting plans on their own neighborhoods. For example, citizens can use the new systems to define their own "community of interest" and object to plans that would split their neighborhoods into different districts. "The name of the game is preserving your political efficacy and power, which means making sure your community doesn't get cut up," says Kim.

While elected officials and large advocacy groups such as MALDEF already have their own systems, the Public Access Plan is sure to help "the little guy — grass-roots organizations and neighborhood councils," Ochoa says.

Zimmerman says he expects about 20 complete plans to be submitted — and a lot more comments. "I think it will be an educational process and a lively debate [that] could result in the enhancement of the final plan," he says. The answers will come soon: The deadline for submitting plans is May 31.

Greninger is optimistic about the program. "I'm hoping this changes democracy in California," he says. "If you don't have all of these safe districts anymore, the battles won't be fought in the primaries. They'll be fought in the general elections, and you'll get more moderate candidates."

Public access is a win for legislators, too, Storey says. "It helps them avoid big mistakes and end up in court, losing on the plan they adopted," he says. "And if someone draws up a plan that's better that is going to be considered by the courts, it's going to set a standard — for better or worse." ◆

Tools for Drawing Your Own Districts

While a handful of governments are working on cloud-based redistricting applications for public use, there are several private initiatives that let citizens participate in the redistricting process.

- **District Builder**
  www.publicmapping.org
  The Public Mapping Project, a public interest coalition, has developed an open-source redistricting application.
- **RedrawCA**
  www.redrawca.org
  The Advancement Project, a Los Angeles-based public policy organization, has a free, publicly available Web-based redistricting tool for California.
- **Dave's Redistricting Application**
  www.gardow.com/davebradlee/redistricting
  This free program, created by programmer Dave Bradlee, lets users create congressional district plans for any state except Alaska.

— ROBERT L. MITCHELL

» Imris has set up a company app store, but it also allows end users to download publicly available software, says IT Director Ben VanOsch.

[GRAND OPENING FOR APP STORES]

The influx of tablets offers an opportunity to set up **in-house app stores** – for convenience and control.

BY BOB VIOLINO

AS MORE AND MORE tablet computers enter the workplace, IT managers are facing this question: Do you allow employees to load any applications they want on the devices, or do you offer a specific set of enterprise applications — sort of an internal "app store"?

The answer often comes down to factors such as your organization's goals, how employees are using tablets on the job, and your corporate culture. One possibility is to adapt your existing smartphone policies to tablets.

"Enterprise applications [on tablets] are an important and growing phenomenon," says Philippe Winthrop, managing director of the Enterprise Mobility Foundation, a Boston-based think tank. "Organizations are realizing that a lot of applications that the company uses can be relevant on mobile devices."

Continued on page 26

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Continued from page 24

Whether it involves creating software internally or purchasing prebuilt apps, there must be some level of control, Winthrop says.

The Enterprise Mobility Foundation recommends that organizations set up their own in-house enterprise app stores. By adopting an approved list of apps, enterprises can ensure that users download programs that the organization has tested and OK'd and can maintain, Winthrop says.

Imris, a Winnipeg, Manitoba, provider of medical equipment, has given Apple iPads to sales and marketing personnel, product managers, executives and other employees. The company lets users download software from an internal app store that it set up using a tool from Apperian called Enterprise App Services Environment, says Ben VanOsch, IT director at Imris.

The IT group identifies publicly available apps that it wants to adopt as recommended company tools, and they're added to the Imris app store. This allows for "consistency" throughout the enterprise, VanOsch explains.

Currently, Imris has 16 privately developed apps and two public ones in its app store, which the company calls InfoCentral. It expects to deploy two more public apps within a couple of months, after the IT group vets them, and it's in the process of developing two more private applications that will be released by mid-June.

The company has a total of 32 iPad users, all of whom have downloaded apps from InfoCentral. "We are considering deploying iPads to our board of directors, other leaders and to every employee," says VanOsch. "We believe the iPad can become a strategic communication tool, providing increased timeliness of the message and increased environmental responsibility by reducing paper as a means of communicating."

While the app store is the preferred source of applications, VanOsch says it's likely that Imris iPad users have downloaded personal software as well — and he says that's OK with him.

The company's strategy provides flexibility for end users while at the same time giving IT some control over what can be used on the devices. Most users "have the same app requirements," says VanOsch. "However, due to their different roles and localization needs, [they have] the latitude to personalize their iPads in a manner they believe will provide them the greatest benefit."

The company app store "allows us to manage the deployment of apps from our main office and [keep] everyone worldwide with the same message and tools," he says. In the past, marketing materials or sales tools deployed to teams could be altered or grow outdated, resulting in an increased risk of company representatives presenting conflicting messages to potential customers.

The Middle Ground

Other organizations are allowing employees to select from a range of publicly available applications — with some controls — rather than creating in-house app stores.

The Morris School District in Morristown, N.J., has deployed about 200 iPads to high schools and middle schools, and it plans to increase the number considerably in the coming months. Students and teachers use the devices to download content such as electronic

Tablet Tips

- **Create a clear policy** about tablets in the workplace, including which applications can be used for business purposes and how company-owned data should be treated.
- **Consider using partitioning tools** that separate business-owned data from consumer data on the devices.
- **Encourage feedback** about which applications seem particularly useful for the organization or for specific groups.
- **Seek volume discounts** for tablet applications as a way to control costs.

– BOB VIOLINO

Tools for Building An App Store

YOU COULD BUILD your own enterprise app store to distribute and manage mobile applications. IBM, for example, created its own online app marketplace called Whirlwind, according to a recent *BusinessWeek* article.

But there are a handful of vendors that offer software intended to make the process of opening and maintaining an app store easier. They include AppCentral (formerly Ondeego), Apperian, MobileIron, Partnerpedia and Rhomobile.

AppCentral, for example, claims that its Mobile App Management software handles three major challenges facing enterprises trying to manage apps on company- and employee-owned mobile devices: distribution, security and administration.

Distribution means getting approved apps installed on users' devices. AppCentral distributes native apps, HTML5 apps or links to consumer marketplace apps. "Role-based distribution delivers the right apps to the right employees," the company says on its website.

AppCentral says it secures corporate apps and data with a "mobile app wrapper." And it wipes apps if the device is lost or if the employee who uses the app leaves the company – without touching personal information on employee-owned devices.

To run the store, AppCentral manages, monitors and updates mobile apps over the air. The software also manages licenses and tracks app installation and usage, the vendor says. AppCentral's software is available in an on-premises version or as a hosted service.

The next step in the evolution of enterprise app stores is to allow employees to rate the apps' usefulness – something IBM is encouraging its employees to do on its internal social network.

Giving people the ability to rate and discuss apps could have far-reaching consequences, according to a recent Forrester Research report. It concluded: "Participation in an employee social community where app store applications can be rated, and new ones asked for, will stimulate increasingly savvy mobile users to share knowledge about new tools that save time, facilitate collaboration and communication, and also nurture an innovation culture within the company."

– MITCH BETTS

textbooks, and for subject-related applications, such as astronomy software for science classes.

But all tablet applications must be approved by the IT department or by "content supervisors" within each school building, says Tim McDade, director of technology for the district. Anyone is free to suggest applications that have educational value.

The IT department does not want to be the app police.

BILL THIRSK, VICE PRESIDENT OF IT, MARIST COLLEGE

"We don't want to hinder either teachers or students [from using] what's out there; we don't want to put up barriers," McDade says. Allowing people to suggest apps enables the district to keep up with the constantly changing landscape of software, he says. About 100 apps that users recommended are now in use, and a great number of them were free.

Schumacher Group, a Lafayette, La., company that provides emergency-room management services to hospitals, also gives users latitude in selecting applications for tablets. The company recently launched a tablet pilot program through which about 35 iPads have been deployed, says CIO Doug Menefee. Schumacher Group lets individuals deploy and manage their applications.

The IT department works with users to determine whether particular applications will meet their needs; if they will, it procures the apps. "I'm a big believer in not trying to control the user population," Menefee says. "I feel that by putting too much control on users, you don't get them exposed to other user interfaces and other solutions. I like it when users come to us with a business problem and say, 'If it just acted like X app, then that would meet my needs.' "

On the spectrum that ranges from total control to total freedom, Marist College in Poughkeepsie, N.Y., is on the freedom end. The IT staff supports tablets for use by students, faculty and staff, and the college allows users to load anything they want on the devices, even those owned by the college, as long as the users abide by college policies and regulations.

"We believe that employees will select apps that make them more productive or their work lives easier," says Bill Thirsk, vice president of IT at Marist. "It clearly fosters creativity. And the IT department does not want to be the app police. We are likely to miss great apps if we block innovation."

Should an application appear that's harmful to the college's network, is out of line with policies or in some way breaks the law, officials will block it from being downloaded or transmitted via college-owned networks. Further, students "must also abide by our network acceptable-use policy," Thirsk says.

Nevertheless, "as the CIO of an educational institution dedicated to innovation," he adds, "I must support faculty and students with just about any and all use cases that are presented." ◆

Violino *is a freelance writer in Massapequa Park, N.Y. You can contact him at bviolino@optonline.net.*

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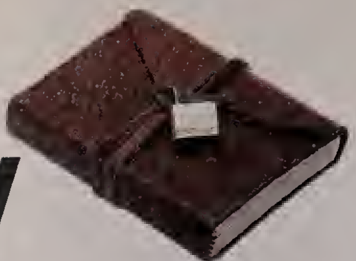

Security Manager's Journal

MATHIAS THURMAN

Tracking the ROI on SIEM

A limited deployment of a security information and event management tool is paying off. Now to convince the suits.

Trouble Ticket

At issue: The CIO and CFO want to know what they're getting for the $200,000 spent on SIEM.

Action plan: Show them how it has already helped safeguard IP.

OUR SECURITY information and event management (SIEM) tool has been on the job for nearly four months, and the bill has come due.

Not the literal bill; we already paid more than $200,000 for our limited deployment. But now the CIO and chief financial officer want to know what we're getting for our money. It's a great question, and I just need to formulate the right answer.

Not that there's any question in my mind that we're getting our money's worth. But I'm going to need some hard facts to back that up.

Right now, I have an analyst spending about 20% of his time maintaining, tuning and analyzing our SIEM system and its data output, as well as responding to any security events it turns up. I wish he could devote more time to it, but I have an aggressive security program and limited human resources.

Nonetheless, our new infrastructure is making a difference. We can now see activity and formulate events based upon data previously unavailable to us. For example, we can positively identify PCs and servers that are infected with malware that opens back channels to command-and-control servers in places like Russia and China, and we can identify unauthorized attempts to access our critical financial and HR applications.

I'm putting together a PowerPoint presentation on vulnerability management for the CIO and CFO, with a special focus on the SIEM deployment. I want to be able to show them that the SIEM system doesn't just make us aware of security events, but that it also plays a crucial role in our "defense in depth" strategy.

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That strategy arises from my sense, as a security professional, that there is no silver bullet. You need multiple technologies. So, besides collecting event data from our SIEM, we get information on security incidents from our firewalls, vulnerability scanners and antivirus software, as well as from third parties, including law enforcement. This is necessary, because no matter how much data we feed into the SIEM, there will always be things that slip through the cracks. And some of the other reports are simply more straightforward. For example, both the SIEM and the firewalls allow me to generate reports on violations of acceptable use, such as the use of unauthorized remote access software like pcAnywhere, but the firewalls' reports are more visually pleasing. With the SIEM, I would have to do a lot more fiddling to get the data into the right format.

My presentation will include some explanation of what SIEM is, to ensure that we're all on the same page. I'll then discuss the architecture and scope, the types of data being fed into the platform, and the types of events we're able to generate. I'll also explain who responds to what events.

Cut to the Chase

But the real meat will be describing, in monetary terms, how we are getting a return on our investment. This will be more difficult, since the ROI can only be measured over time. But I will show, for example, that if we didn't have the SIEM, certain events would have gone undetected, resulting in the loss of intellectual property. I won't need to explain to them the cost if our competitors were to get their hands on our source code, business plans or customer lists.

I can also show that proactively detecting malicious threats before they spread saves on help desk costs and reduces lost productivity (when we have to reimage an employee's PC, for instance). For raw numbers, I can highlight the events the SIEM discovered compared to all our other detection methods combined. This number alone justifies the SIEM investment and could get me the green light for the greenbacks to expand the deployment beyond monitoring just 40% of our overall traffic. ◆

This week's journal is written by a real security manager, **"Mathias Thurman,"** *whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com.*

> **"I won't need to explain the cost if our competitors were to get their hands on our source code or business plans.**

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OPINION

JOHN D. HALAMKA

Facing Down VUCA, and Doing the Right Thing

> “Volatility, uncertainty, complexity and ambiguity can block the path to the right thing to do.

HOW DO IT LEADERS deal with unpredictable demand, increasing expectations, constantly changing technologies, escalating compliance requirements and fixed budgets? They need to accept and manage VUCA.

You probably know VUCA even if you don't know the acronym. It stands for volatility, uncertainty, complexity and ambiguity. It arose in a military context in the 1990s, when VUCA might have been used in reference to Somalia, for example. More recently, it's been applied to organizational leadership by several authors, most notably Bob Johansen, former CEO of the Institute of the Future.

Johansen's take on VUCA is that it will only get worse. But its presence creates both risk and opportunity, he says, and strong leaders are able to redefine the acronym by turning volatility into vision, uncertainty into understanding, complexity into clarity, and ambiguity into agility.

One of his more interesting observations is that VUCA has tremendous implications for "commons building," which you may know better as "coopetition," or cooperative competition.

My experience is in healthcare IT, so let me give you an example of commons building from that field. Fifteen percent of the lab and radiology tests done in eastern Massachusetts are redundant or unnecessary. Ensuring that all test results are available electronically among all providers (especially competing organizations) will require millions of dollars for implementing electronic health record (EHR) systems, health information exchanges and interfaces. Thus, we'll have to spend money for a system that will reduce our incomes, since the goal is for healthcare providers to administer fewer tests overall. It's the right thing to do, but VUCA can block the path to the right thing. In this case, the medical IT commons will be at odds with individual providers' incentives in a fee-for-service world. So how do you neutralize VUCA? You change the incentives and pay individual providers for care coordination, not for ordering more tests.

Think back to 2008. The Obama campaign suggested that EHRs were the right thing to do. At Beth Israel Deaconess Hospital, we could see signs that a big stimulus package would be forthcoming, but large-scale EHR rollouts require significant lead time and wouldn't qualify for stimulus funds. Still, we wanted to move forward with EHR. We decided that a software-as-a-service model was the way around the VUCA, and we created a private cloud. To us, it seemed like the right thing to do because it kept all software and data on the server side rather than in doctors' offices. Today, people look at our community EHR model and congratulate us for being ahead of the curve on private clouds. But we weren't trying to be a trendsetter. We just had intuition based on the market forces and technology trajectory we saw — and we guessed. I'd like to be able to say we built a private cloud on purpose, but it was a serendipitous guess.

Sometimes all you can do is make guesses for the future. In my case, none of us know what healthcare reform will bring or what the reimbursement models will really be. But we need to act now to be ready for the next two years. That's VUCA.

On occasion, I tell my wife that someday the VUCA I face will get better. She reminds me that it will only get worse. If I'm doing my job properly, I will accept and manage the VUCA, so that my staff can focus on the work we need to do to stay on the cutting edge. ◆

John D. Halamka is CIO at CareGroup Healthcare System, CIO and associate dean for educational technology at Harvard Medical School, chairman of the New England Health Electronic Data Interchange Network, chairman of the national Healthcare Information Technology Standards Panel and a practicing emergency physician. You can contact him at jhalamka@caregroup.harvard.edu.

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Career Watch

What IT Workers Want

IF YOU WANT to motivate your IT staffers, give them interesting work. That approach would work best with younger employees, but it's effective with older people as well, according to a survey conducted by Forrester Research. In fact, the only thing that was more motivating for older workers was a sense of job security, which could come from statements a company makes or its "history of avoiding outsourcing, or implementing layoffs only as a last resort." For 86% of workers 45 and older, job security was chosen as one of the most important factors for motivation or as one that had a significant impact. Those younger than 45 put it 10th, with just 40% saying it was one of the most important factors or a significant factor. That's not a big surprise, of course: Older people naturally feel less resilient than the young. Other areas on which the older and younger groups didn't see eye to eye – employee development and the threat of disciplinary action for poor performance – are also fairly easy to understand (younger workers are more interested in professional development, and older people are more fearful of disciplinary action). The only other factor with a significant deviation was the desire for one's work to have a broader purpose, in a way that improves the community, industry or conditions outside of the company. Older workers cited that as a motivating factor more frequently than younger people did.

TOP JOB: Software Engineers Are Back

It wasn't too long ago that software engineering was being written off as a viable career option for college graduates in the U.S. But things have turned around enough for jobs site CareerCast to declare it the best job in 2011.

$87,140

CareerCast's estimate of the average annual salary for software engineers in 2011

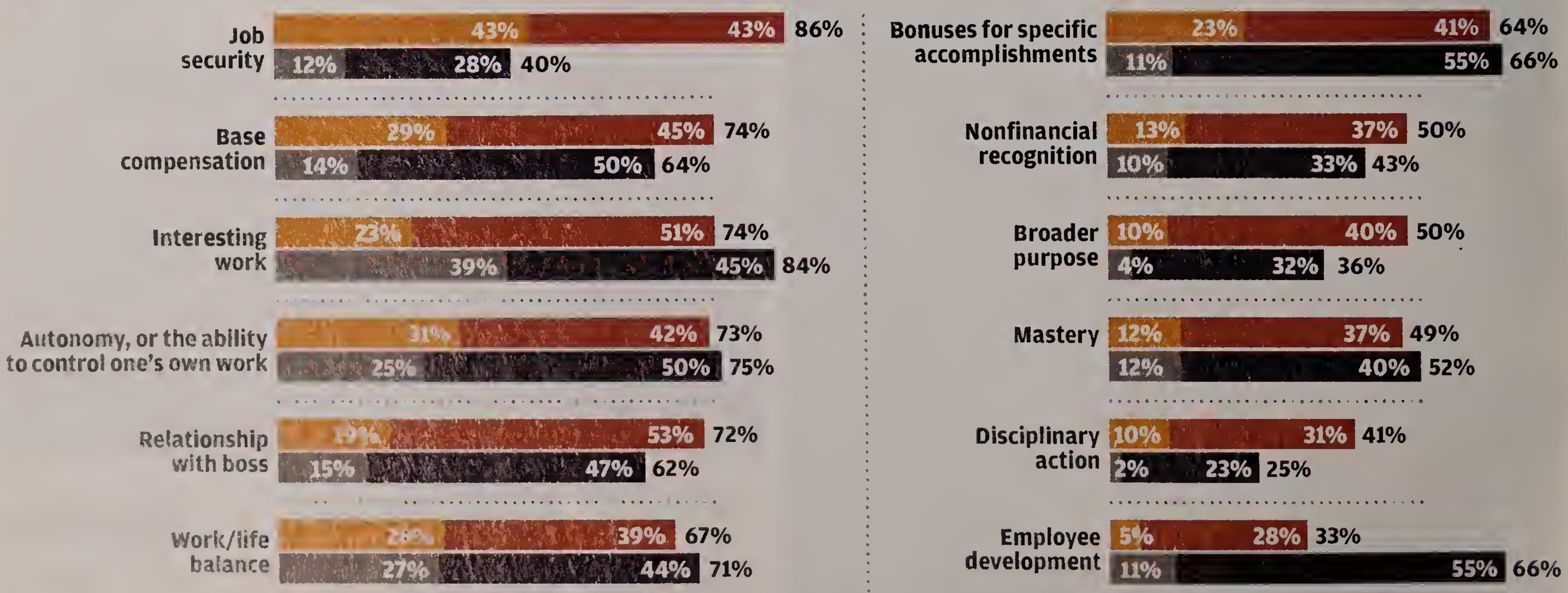
CareerCast looked at 200 job titles across several industries, ranking them according to five criteria: work environment, physical demands, outlook, income and stress. Here's how CareerCast explained the resurgence of software engineering: "A proliferation of companies making applications for smartphones and tablets, along with the push to develop 'cloud' software hosted entirely online, has made the job market for software engineers broader and more diverse. And a diverse job market brings improvements in stress factors such as growth potential and competitiveness, as workers become less beholden to employers or vulnerable to outsourcing."

Also in the top 10: computer systems analyst, at No. 5.

Comparing Motivational Factors for Older and Younger IT Workers

🟧 = One of the most motivating factors for workers 45 and older | 🟥 = A factor with significant impact for workers 45 and older

▨ = One of the most motivating factors for workers younger than 45 | ■ = A factor with significant impact for workers younger than 45



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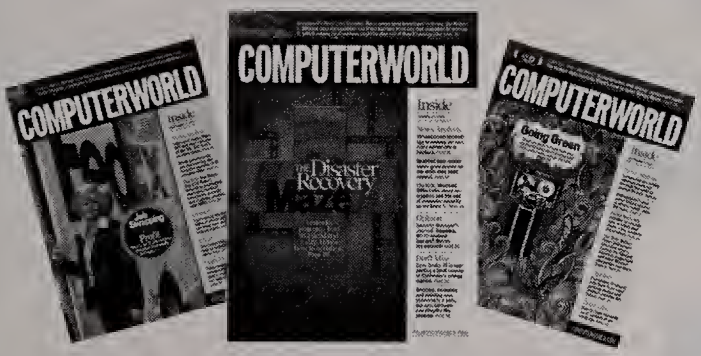

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SHARKTANK

TRUE TALES OF IT LIFE AS TOLD TO SHARKY

HAL MAYFORTH

Access Is on a Need-to-Nosh Basis

This contractor pilot fish is working at a government facility, and he is welcome to attend almost all of his team's meetings. That's *almost* all. "I was not allowed to go to certain morning meetings," says fish. "I asked my supervisor why, since other members of the department with clearance equal to mine were allowed. My supervisor explained that the reason I couldn't attend those meetings was because coffee and donuts were served. If I attended the meeting, then a contractor would be getting something for free – meaning the facility did not get anything back in return for the coffee and donuts – and the rules allowed money to be spent only on employees. However, he said I was welcome to the leftovers that were put in the kitchen after the meeting."

That Was Easy

In this data center, one application's disk quota is rapidly being filled up by hundreds of temporary files that the homegrown software has neglected to delete. Fortunately, the boss has an answer: "He said we'd archive all the old temp files 'in case somebody important wants them someday,' " says a pilot fish who's pretty clear on how bad an idea this is. "Being a take-charge, sleeves-up kind of guy, he even created the archive and moved all the old temp files into it – uncompressed, of course. On top of that, the boss had archived hundreds of the temp files by moving them into a directory called 'archive' that he had created on the same disk they were already on, so they still counted toward our disk quota. Later in the week, when the whole thing was forgotten, I deleted all the temp files, making our disk utilization OK again."

Root Cause

Systems administrator goes to a cabling technician about a backup connection that seems to have gone bad, reports a pilot fish in the know. "They go to the unit in question, and the cabling tech looks at the fiber connection and says, 'It's not the cable – see, the data light is flashing,' " says fish. "He also points out that the cable the sysadmin is looking at is a production connection, not a backup connection. Sysadmin insists it's bad and, over the objections of the cabling technician, pulls the cable to prove it – which of course causes an outage in the middle of the day. The matter is sent to a root-cause analysis team – a group of managers – to isolate what caused the outage. They come back stating that the root cause of the outage was a mislabeled cable and ask to have all of the labels on all of the many thousands of cables in the data center reviewed for accuracy."

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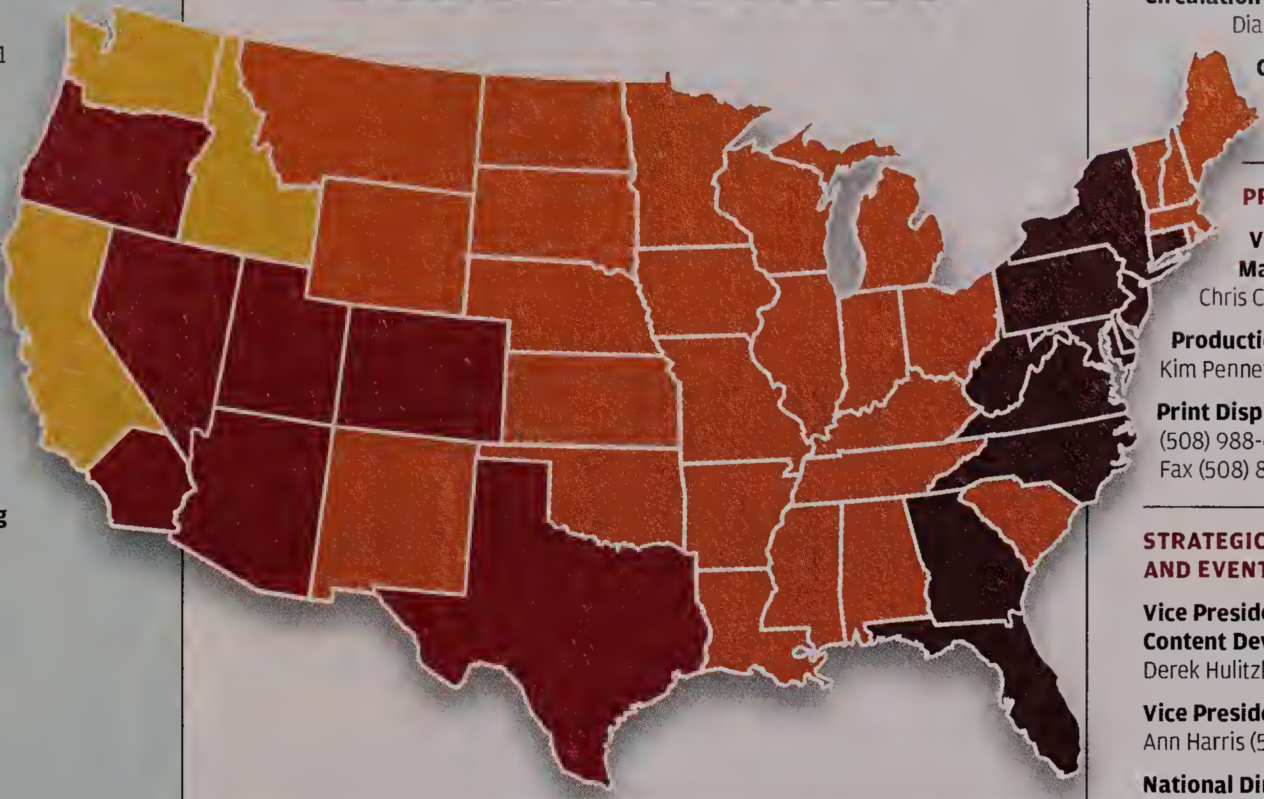

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OPINION

PAUL GLEN

Is It 'Us vs. Them' or 'All Together Now'?

> I listen carefully for six simple words that tell me all I need to know about the relationship between project team and sponsor.

OVER THE YEARS, I've noticed the power that a few simple words have to determine how project teams relate to their sponsors: "client," "customer," "we," "us," "them" and "partner." It's odd how little attention is paid to these words, given the critical role that the relationships they describe play in the success or failure of projects.

As a consultant helping to launch new projects or turn around troubled ones, I listen carefully for these words, because they tell me all I need to know about the relationship between project team and sponsor. When I hear "client," "customer," "us" or "them," I know that the team is working in a transaction mode. "Partner" and "we" indicate that they are in a relationship.

A Tale of Two Modes

The mode of the interaction tells participants how to conceptualize their roles. This informs the goals they pursue, their relative social status, the information that they share with each other, the tone of the conversations they have and the ethical standards they are expected to uphold.

Transaction mode has two distinct roles: buyer and seller. Buyers, usually the project sponsors, are concerned with acquiring the best technology for their constituents at the best possible price. They expect to be treated with deference, since "the customer is always right." Maintaining a long-term relationship with sellers isn't likely to be a high priority for buyers, because they sometimes have to change suppliers to get the best deal. Since the long-term relationship isn't that important, they might be willing to be (or even delight in being) unreasonable and coercive to get what they want.

Sellers, often the project managers, are concerned with satisfying the customer while making the best profit possible. They treat buyers with deference in public, but possibly with derision in private. They will do what they must to get and keep the business, including possibly withholding information or being deceptive.

Relationship mode has only team members, not opponents. The team members represent different functional areas, but they are ultimately part of a collective. They jointly define common goals and expected standards of behavior. Together, the team members work to balance the common goals they commit to and the goals of each functional area that the members represent. The balancing act is more collaborative. Information is handled more transparently, and problem-solving is a joint effort. Together, the team places a higher priority on maintaining the long-term relationship, since they expect to continue working together after the completion of the project.

While each mode has advantages and disadvantages, relationship mode tends to yield better results and lead to a better work environment for everyone involved. Teams in relationship mode find motivation in their commitment to one another. When the dynamic is transactional, the participants find motivation outside the team. Teams committed to their buddies are more steadfast than ones devoted to a concept or a distant client.

So before you automatically start calling your sponsor your "client," give the relationship some serious thought. One little word at the beginning of the project can make a huge difference. ◆

Paul Glen is the CEO of Leading Geeks, an education and consulting firm devoted to unlocking the value of technical people. You can contact him at info@leadinggeeks.com.

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